

REMARKS

Claims 13 and 15 have been amended. One example of support for the amendments to claims 13 and 15 may be found in para. 0082. Claims 1-9 and 12-15 are currently pending.

Rejections Under 35 U.S.C. § 101

The Office Action includes a rejection under 35 U.S.C. § 101 of claims 13 and 15 as allegedly being directed to non-statutory subject matter. Applicants thank the Examiner for the helpful suggestion, and have amended the claims accordingly. In light of this change, withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. § 103

The Office Action includes a rejection of claims 1-15 under 35 U.S.C. § 103 as allegedly being unpatentable over O'Neill (U.S. Patent No. 6,832,373) in view of Chen et al. (U.S. Patent No. 7,657,886). This rejection is respectfully traversed.

Claim 1

Computational effort is often at a premium on devices like cellular phones. Certain embodiments of the claimed invention are able to reduce the amount of computation on a cell phone, or other connected device, by performing computations or recording information (whose retrieval after transmission would require computation) before transmitting an update package. The software on the cell phone can then read the information, e.g., which form of update is provided, and benefit from the minimizing of use of cell phone resources.

Claim 1 recites "determining whether an update package is a corresponding update package for said form," and specifies that the form indicates "at which end of the old version free space is located."

One reason O'Neill lacks this element is that O'Neill does not determine whether an update package corresponds to any form. As depicted in Fig. 1A, O'Neill's update generator generates an update, but it does not specify a form of the update. O'Neill teaches away from including additional information in an update to identify a form, because it emphasizes the importance of reducing the size of an update package and preserve bandwidth on the receiving device. O'Neill, col. 8, ll. 37-47.

A second reason that O'Neill lacks this element is that the update package corresponds to said form, where said form indicates at which end of the old version free space is located. As O'Neill does not disclose indicating at which end free space is located, it follows that O'Neill can not determine if an update corresponds to a form indicating that information. The Examiner agrees. Office Action, pg. 6.

Chen fails to cure the above deficiencies. Beyond requiring additional computation on a cell phone, Chen discloses adding an entire memory management unit (MMU) to the device. Chen, title and abstract. Chen discloses that an MMU can receive any update (e.g., not of a particular form), and the MMU hardware can do various things to update the memory more effectively. Chen, col. 4, ln. 66 - col. 5, ln. 21. Chen therefore teaches away from update packages that correspond to a form, because Chen puts the intelligence by way of the MMU, and thus the computational expense, in the cell phone.

Claims 2-7 are allowable for at least the reasons above because claims 2-7 depend from claim 1. Claims 9, 12 and 13 are allowable for at least the reasons above because claims 9, 12 and 13 recite similar claim elements. These claims may include other patentably distinct features, but will not be discussed separately for sake of brevity.

Claim 6

Claim 6, dependent from claim 1, stands out for additionally reciting "determining whether an amount of free space in the old version is too small to allow in-place update of the old version to the new version; and if so, enlarging said free space to allow said in-place update." Chen lacks both determining if the free space is too small and conditionally enlarging the free space. The section cited by the Office explains that Chen is able to map free blocks, which are presumably non-contiguous, from a physical address to a logical address. Chen explains that such a bank of free memory bank may be useful to back up information while updating memory. Chen uses the free memory for backup purposes only. Once the update is finished, this free memory is free again and is not part of the new version.

Claim recites 6 "enlarging said free space to allow said in-place update," which actually writes in-place to the free memory. That is, it is part of the updated-new version and once the update is done the so called free space is not free anymore. Not only is this a different use of free memory, it lacks both the "determining" and "enlarging" recitations of claim 6.

Claim 7 is allowable for at least the reasons above because claim 7 depends from claim 6.

Claim 8

Independent claim 8 recites "generating an update package that is adapted for said form of the old version; and conveying said update package to said remote device." As discussed above, O'Neill lacks update packages with different forms, particularly the recited form. Chen is also intended to receive a generic update package. The claim element reciting "conveying" specifies that the update is conveyed to a remote device. The MMU of Chen cannot be remote because it must have access to the memory it is supposed to be managing.

Claims 14 and 15 are allowable for at least the reasons above because claims 14 and 15 recite similar elements.

Conclusion

In light of the foregoing, Applicants respectfully request reconsideration and allowance of the above-captioned application. Should any residual issues exist or arise, the Examiner is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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